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Düsseldorf 07. May 2004  
Your ref.  
Our ref. WY/wy 020418WO

**International patent application PCT/IB02/02504  
in the name of Nokia Corporation**

In response to the Written Opinion dated March 30, 2004 concerning the  
above identified PCT application, it is respectfully requested that the  
examination is continued based on the originally filed claims and under  
consideration of the following explanations.

**I. Subject matter of the claims**

The application relates to a cover for an electronic device (claim 1). The  
cover comprises the following features:

- A A decoration which is visible to a user when the cover is connected to an  
electronic device.
- B Contact sensitive means arranged such that they generate an electrical  
signal when a part of the cover is touched.
  - B1 More specifically, when a part of the decoration associated to the  
contact sensitive means is touched.

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C Connection means for electrically connecting the contact sensitive means to processing means.

The invention aims at enhancing the functions a cover provides for an electronic device. (page 2, par. 4)  
This is achieved with the cover of claim 1, as such a cover provides a possibility for an interactive decoration. (page 3, par. 3)

The invention relates in addition to an electronic device comprising such a cover (claim 12).

## II. State of the art

The examiner considered claims 1 to 8, 12 and 13 not to be new and all other claims not to be based on an inventive step. He cites one document for supporting this estimation:

### US 5,677,711 (D1)

This document describes a touch control type cursor control device. (Title)

The device as described with reference to e.g. Figures 1 to 3 comprises a bottom shell 16 and a cover frame 15, which are fastened together to provide a housing for housing a digitizer 10 and keys. (col. 2, lines 20-27)

The digitizer is mounted within the cover frame. (col. 2, lines 42-43) A circuit board 20 is secured to the bottom shell beneath the digitizer. (col. 2, lines 52-54)

When a finger is moved on the digitizer, the digitizer is induced by the finger to provide an electric signal corresponding to the amount and direction of the movement of the finger on the digitizer. The signal from the digitizer is transmitted to the circuit board through an electric wiring 29, and then transmitted to a computer system through the connecting line 17 to move a cursor in a screen of a monitor of the computer system. (col. 2, lines 55-63)

## III. Novelty and inventive step

### Independent claim 1

The examiner is of the opinion that the cover frame 16 and the digitizer form together a cover of an electronic device in accordance with claim 1. Moreover, he considers the mentioned decoration to form an artistic feature, not a technical feature, which is thus not to be considered. As a result, the examiner considers claim 1 not to be new in view of document D1.

Just like the keys in document D1 however, a person skilled in the art would not consider the digitizer as part of a cover. A person skilled in the art would only consider the cover frame and/or the bottom shell of the device of document D1 as a cover. The digitizer provides the main function of the device of document D1 and it is only not covered by the cover in order to make it accessible to a user, it does not form part of the cover itself.

Further, in the present application, the decoration on the cover does constitute a technical feature. The actual design of the decoration, which may but does not have to comprise artistic elements, is not part of claim 1. In claim 1, the decoration rather defines the region or regions of the cover which a user has to touch for causing the generation of an electrical signal. In the embodiment of the invention presented with reference to Figure 1, even the design of the decoration is purely technical. Here, the decoration consists in a representation of six control buttons 12 of an MP3 player (page 7, 1st paragraph). In combination with the signal generation in accordance with the invention, the decoration thus replaces in this case regular buttons, including their respective function.

Therefore, at least the decoration in its function as an indication of the part or parts of the cover which can be touched to generate a desired electrical signal as defined in feature A in combination with feature B1 has to be considered a technical feature which is not disclosed in document D1.

The subject matter of claim 1 is thus new compared to document D1. It is equally based on an inventive step when proceeding from document D1, as will be shown in the following.

The objective problem to be solved by the application is to enhance the functions of a cover, which is solved by providing an interactive decoration as defined by features A, B, B1 and C of claim 1.

This problem is not solved by document D1. The only part of the device of document D1 which will be considered by a person skilled in the art as a cover is the cover frame, which does not offer any functions beside forming a housing and holding other components.

But even if a person skilled in the art would consider the digitizer to form in addition part of the cover, this would not lead the person skilled in the art to the solution according to claim 1.

In document D1, the digitizer is used as part of a cursor control device. It is an implicit requirement of such a component that it is irrelevant which part of the digitizer is touched. It is only of relevance in which direction and how far a finger touching the digitizer is moved. (Just as it is irrelevant at which position a computer mouse is started to be moved for controlling a cursor on a screen.)

Therefore, a person skilled in the art will see no incentive in document D1 to provide the digitizer of the device of document D1 with a decoration of which a specific part is associated to specific contact sensitive means.

Consequently, the subject matter of claim 1 has to be considered to be based on an inventive step in view of document D1.

#### Independent claim 12

As the electronic device of claim 12 comprises the cover of claim 1, the same comments apply as for claim 1. Thus, also the subject matter of claim 12 has to be considered to be new and to be based on an inventive step.

#### Dependent claims

The subject matter of the dependent claims has to be considered to be new and based on an inventive step already due to the direct or indirect reference of the dependent claims to a respective new and inventive independent claim.

Particular features in the dependent claims which are neither disclosed in nor rendered obvious by the cited prior art will be mentioned nevertheless.

It is not disclosed in document D1 that touching different parts of the digitizer results in different signals. (claims 6 and 7)

Further, even if the digitizer is considered as part of the cover, it is at least not disclosed in document D1 that the cover comprises in addition processing means. (claim 8) That is, simply by exchanging the cover, completely new functions which may be activated by a user can be provided to an electronic device (page 5, lines 4-6 of the description).

Moreover, it is not disclosed in document D1 that a decoration of which a part is associated to touch sensitive means can be varied. (claims 9-11) There is no incentive whatsoever for a person skilled in the art, for example, to integrate LEDs into the digitizer of document D1. A variable decoration, however, allows to use a single cover for various types of interactions. Depending on the presented decoration, the electrical signals which are generated when a particular part of the cover is touched may result e.g. in one of several functions.

#### IV. Final remarks

Summarized, it has been shown that the subject matter of the originally filed independent claims is new and based on an inventive step. It is therefore expected, that a positive International Preliminary Examination Report can now be issued.

a. yes

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Patent Attorney

Rec'd PCT/PTO 03 DEC 2004  
10/516887

# INTERNATIONAL SEARCH REPORT

Internal Application No  
PCT/IB 02/02504

**A. CLASSIFICATION OF SUBJECT MATTER**  
IPC 7 G06K11/18 G06F3/02

According to International Patent Classification (IPC) or to both national classification and IPC

## **B. FIELDS SEARCHED**

Minimum documentation searched (classification system followed by classification symbols)  
IPC 7 G06K G06F

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EP0-Internal, WPI Data, PAJ

## **C. DOCUMENTS CONSIDERED TO BE RELEVANT**

| Category * | Citation of document, with indication, where appropriate, of the relevant passages                                | Relevant to claim No. |
|------------|---|-----------------------|
| X          | US 5 677 711 A (KUO CHUNN CHERH)<br>14 October 1997 (1997-10-14)<br>column 2, line 21-49<br>abstract; figures 1,2 | 1-5,8,<br>12,13       |
| A          | -----   | 6,7,9-11              |

☐ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

\* Special categories of cited documents :

- "A" document defining the general state of the art which is not considered to be of particular relevance
- "E" earlier document but published on or after the international filing date
- "L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- "O" document referring to an oral disclosure, use, exhibition or other means
- "P" document published prior to the international filing date but later than the priority date claimed

- "T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
- "X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
- "Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.
- "&" document member of the same patent family

Date of the actual completion of the international search

17 February 2003

Date of mailing of the international search report

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## Information on patent family members

PCT/IB 02/02504

**Patent document  
cited in search report**

Publication date

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US 5677711

**A**

14-10-1997

**NONE**